

FACT SHEET FOR NPDES PERMIT NO. WA0003352
WASHINGTON CRAB PRODUCERS,
CRAB AND SHRIMP PLANT

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INTRODUCTION

The Federal Clean Water Act (FCWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System (NPDES) of permits, which is administered by the Environmental Protection Agency (EPA). The EPA has delegated responsibility to administer the NPDES permit program to the State of Washington on the basis of Chapter 90.48 Revised Code of Washington (RCW) which defines the Department of Ecology's (Department) authority and obligations in administering the wastewater discharge permit program.

The regulations adopted by the state include procedures for issuing permits [Chapter 173-220 Washington Administrative Code (WAC)], water quality criteria for surface and ground waters (Chapters 173-201A and 200 WAC), and sediment management standards (Chapter 173-204 WAC). These regulations require that a permit be issued before discharge of wastewater to waters of the state is allowed. The regulations also establish the basis for effluent limitations and other requirements which are to be included in the permit. One of the requirements (WAC 173-220-060) for issuing a permit under the NPDES permit program is the preparation of a draft permit and an accompanying fact sheet. Public notice of the availability of the draft permit is required at least thirty days before the permit is issued (WAC 173-220-050). The fact sheet and draft permit are available for review (see Appendix A--Public Involvement of the fact sheet for more detail on the Public Notice procedures).

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in this review have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Comments and the resultant changes to the permit will be summarized in Appendix D--Response to Comments.

GENERAL INFORMATION	
Applicant:	Washington Crab Producers
Facility Name and Address:	Washington Crab Producers Dock Street at Harms Street Westport WA 98595
Type of Facility:	Crab and Shrimp Processing
SIC Code:	2092
Discharge Location:	Waterbody name: Halfmoon Bay, Grays Harbor Latitude: 46° 54' 23" N Longitude: 124° 07' 00" W
Water Body ID Number:	WA-10-22-03

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

HISTORY

This facility was originally permitted in 1975. It subsequently burned and was rebuilt. The present buildings are approximately 11 years old. A major enlargement of the facility for shrimp processing was completed just before the permit was reissued on June 30, 1995. This permit is not listed by the EPA as a major facility.

INDUSTRIAL PROCESS

Shrimp and crab are brought here and processed for sale. Some crab is frozen and stored here for later reprocessing when the market dictates. Production varies with the abundance of wild caught stock and the weather. Seasonal variation in production varies with the fishing season established by governmental agencies and the market demand for product. Employment varies with demand but averages 100 people working five days a week year around. Intensive best management practices have been instituted to minimize water use (and consequently pollutant discharge) during the crabbing season. Few chemicals other than janitorial chemicals are stored here. Water use for shrimp production includes cooling water for the cooked product and cleanup water for the plant. Crab production produces cooking water from a continuous cooking process and cleanup water. Categorical limits for shrimp production are easily met in contrast to the categorical limits for crab production which are difficult to meet. Other than best management practices, the only treatment for this wastewater is discharge over a 40-mesh tangential screen that has been in place since the term of the first permit.

DISCHARGE OUTFALL

Washington Crab Producers shares the City of Westport outfall, having obtained a legal right to use it. The Washington Crab outfall line joins the City's outfall line at a manhole downstream of the City's wastewater treatment plant. The outfall is submerged off shore in Half Moon Bay.

PERMIT STATUS

The permit for this facility was issued on April 18, 2000. The previous permit placed effluent limitations on flow, pH, biochemical oxygen demand, total suspended solids, fecal coliform, and oil and grease.

WASTEWATER CHARACTERIZATION

The proposed wastewater discharge is characterized for the following regulated parameters:

Table 1: Wastewater Characterization

Parameter	Concentration
Biochemical Oxygen Demand	388 mg/L
Total Suspended Solids	320 mg/L
Oil and Grease	65 mg/L
Temperature	10 °C
Flow	17,750 gpd
Fecal Coliform	828 #/1000

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on January 13, 2003. Samples were taken.

The limits for fecal coliforms were revised on October 6, 2003 to conform to Ecology standard practice, thus raising the limits in the original permit. Comparing Washington Crab Producers' performance to these revised limits for the period July 1, 2000 through November 1, 2003, Washington Crab Producers had 28 violations of the fecal coliform limits.

PROPOSED PERMIT LIMITATIONS

Federal and State regulations require that effluent limitations set forth in a NPDES permit must be either technology or water quality-based. Technology-based limitations are based upon the treatment methods available to treat specific pollutants. Technology-based limitations are set by regulation or developed on a case-by-case basis (40 CFR 125.3, and Chapter 173-220 WAC). Water quality-based limitations are based upon compliance with the Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Standards (Chapter 173-200 WAC), Sediment Quality Standards (Chapter 173-204 WAC) or the National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992). The more stringent of these two limits must be chosen for each of the parameters of concern. Each of these types of limits is described in more detail below.

The limits in this permit are based in part on information received in the application. The effluent constituents in the application were evaluated on a technology- and water quality-basis. The limits necessary to meet the rules and regulations of the state of Washington were determined and included in this permit. The Department does not develop effluent limits for all pollutants that may be reported on the application as present in the effluent. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation. If significant changes occur in any constituent, as described in 40 CFR 122.42(a), the Permittee is required to notify the Department.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

The limits in this permit are categorical limits for new sources taken from 40 CFR 408, Subpart H, Dungeness and Tanner Crab Production in the Contiguous States Subcategory and Subpart K, Northern Shrimp Processing in the Contiguous States Subcategory. The fecal coliform limits are taken from AKART for municipal wastewater treatment plants.

SURFACE WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's surface waters, WAC 173-201A-060 states that waste discharge permits shall be conditioned such that the discharge will meet established Surface Water Quality Standards. The Washington State Surface Water Quality Standards (Chapter 173-201A WAC) is a state regulation designed to protect the beneficial uses of the surface waters of the state. Surface water quality-based effluent limitations may be based on an individual waste load allocation (WLA) or on a WLA developed during a basin wide total maximum daily loading study (TMDL).

NUMERICAL CRITERIA FOR THE PROTECTION OF AQUATIC LIFE

"Numerical" water quality criteria are numerical values set forth in the State of Washington's Water Quality Standards for Surface Waters (Chapter 173-201A WAC). They specify the levels of pollutants allowed in a receiving water while remaining protective of aquatic life. Numerical criteria set forth in the Water Quality Standards are used along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limitations, they must be used in a permit.

NUMERICAL CRITERIA FOR THE PROTECTION OF HUMAN HEALTH

The U.S. EPA has promulgated 91 numeric water quality criteria for the protection of human health that are applicable to Washington State (EPA 1992). These criteria are designed to protect humans from cancer and other disease and are primarily applicable to fish and shellfish consumption and drinking water from surface waters.

NARRATIVE CRITERIA

In addition to numerical criteria, "narrative" water quality criteria (WAC 173-201A-030) limit toxic, radioactive, or deleterious material concentrations below those which have the potential to adversely affect characteristic water uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health. Narrative criteria protect the specific beneficial uses of all fresh (WAC 173-201A-130) and marine (WAC 173-201A-140) waters in the State of Washington.

ANTIDEGRADATION

The State of Washington's Antidegradation Policy requires that discharges into a receiving water shall not further degrade the existing water quality of the water body. In cases where the natural conditions of a receiving water are of lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. Similarly, when the natural conditions of a receiving water are of higher quality than the criteria assigned, the natural conditions shall

constitute the water quality criteria. More information on the State Antidegradation Policy can be obtained by referring to WAC 173-201A-070.

The Department has reviewed existing records and is unable to determine if ambient water quality is either higher or lower than the designated classification criteria given in Chapter 173-201A WAC; therefore, the Department will use the designated classification criteria for this water body in the proposed permit. The discharges authorized by this proposed permit should not cause a loss of beneficial uses.

CRITICAL CONDITIONS

Surface water quality-based limits are derived for the waterbody's critical condition, which represents the receiving water and waste discharge condition with the highest potential for adverse impact on the aquatic biota, human health, and existing or characteristic water body uses.

MIXING ZONES

The Water Quality Standards allow the Department to authorize mixing zones around a point of discharge in establishing surface water quality-based effluent limits. Both "acute" and "chronic" mixing zones may be authorized for pollutants that can have a toxic effect on the aquatic environment near the point of discharge. The concentration of pollutants at the boundary of these mixing zones may not exceed the numerical criteria for that type of zone. Mixing zones can only be authorized for discharges that are receiving all known, available, and reasonable methods of prevention, control and treatment (AKART) and in accordance with other mixing zone requirements of WAC 173-201A-100.

The National Toxics Rule (EPA, 1992) allows the chronic mixing zone to be used to meet human health criteria.

DESCRIPTION OF THE RECEIVING WATER

The facility discharges to Halfmoon Bay, Grays Harbor which is designated as a Class A receiving water in the vicinity of the outfall. Characteristic uses include the following:

water supply (domestic, industrial, agricultural); stock watering; fish migration; fish and shellfish rearing, spawning and harvesting; wildlife habitat; primary contact recreation; sport fishing; boating and aesthetic enjoyment; commerce and navigation. Water quality of this class shall meet or exceed the requirements for all or substantially all uses.

SURFACE WATER QUALITY CRITERIA

Applicable criteria are defined in Chapter 173-201A WAC for aquatic biota. In addition, U.S. EPA has promulgated human health criteria for toxic pollutants (EPA 1992). Criteria for this discharge are summarized below:

Fecal Coliforms	100 organisms/100 mL maximum geometric mean
Dissolved Oxygen	8 mg/L minimum
Temperature	18 degrees Celsius maximum or incremental increases above background

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pH	6.5 to 8.5 standard units
Turbidity	less than 5 NTU above background
Toxics	No toxics in toxic amounts

CONSIDERATION OF SURFACE WATER QUALITY-BASED LIMITS FOR NUMERIC LIMITS

BOD₅--Under critical conditions there is no predicted violation of the Water Quality Standards for Surface Waters. Therefore, the technology-based effluent limitation for BOD₅ was placed in the permit.

Fecal Coliform – Added to permit due to proximity of shellfish beds.

HUMAN HEALTH

Washington's water quality standards now include 91 numeric health-based criteria that must be considered in NPDES permits. These criteria were promulgated for the state by the U.S. EPA in its National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992).

The Department has determined that the applicant's discharge is unlikely to contain chemicals regulated for human health.

SEDIMENT QUALITY

The Department has promulgated aquatic sediment standards (Chapter 173-204 WAC) to protect aquatic biota and human health. These standards state that the Department may require Permittees to evaluate the potential for the discharge to cause a violation of applicable standards (WAC 173-204-400).

The Department has determined that the Grays Harbor Estuary in this vicinity is eroding so rapidly that the Corps of Engineers has a program of nourishing the area with sand. Where no deposition can occur, no sediment quality violation can occur.

COMPARISON OF EFFLUENT LIMITS WITH THE EXISTING PERMITS ISSUED April 18, 2000.

The limits are identical.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are required (WAC 173-220-210 and 40 CFR 122.41) to verify that the treatment process is functioning correctly and the effluent limitations are being achieved.

The monitoring schedule is detailed in the proposed permit under Condition S.1. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring. Monitoring frequency has been reduced in accordance with the policy outlined in the Permit Writers Manual from monthly to twice a year.

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LAB ACCREDITATION

With the exception of certain parameters, the permit requires all monitoring data to be prepared by a laboratory registered or accredited under the provisions of Chapter 173-50 WAC, *Accreditation of Environmental Laboratories*.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S2. are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-220-210).

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste.

This proposed permit requires, under the authority of RCW 90.48.080, that the Permittee update the solid waste plan designed to prevent solid waste from causing pollution of the waters of the state. The plan must be submitted to the local permitting agency for approval at renewal time, if necessary, and to the Department.

GENERAL CONDITIONS

General Conditions are based directly on state and federal law and regulations and have been standardized for all individual industrial NPDES permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control its production in order to maintain compliance with its permit. Condition G10 prohibits the reintroduction of removed substances back into the effluent. Condition G11 states that the Department will modify or revoke and reissue the permit to conform to more stringent toxic effluent standards or prohibitions. Condition G12 incorporates by reference all other requirements of 40 CFR 122.41 and 122.42. Condition G13 notifies the Permittee that additional monitoring requirements may be established by the Department. Condition G14 requires the payment of permit fees. Condition G15 describes the penalties for violating permit conditions.

PERMIT ISSUANCE PROCEDURES

PERMIT MODIFICATIONS

The Department may modify this permit to impose numerical limitations, if necessary to meet Water Quality Standards for Surface Waters, Sediment Quality Standards, or Water Quality

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Standards for Ground Waters, based on new information obtained from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

The Department may also modify this permit as a result of new or amended state or federal regulations.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including marine those limitations and conditions believed necessary to control toxics, protect human health, aquatic life, and the beneficial uses of waters of the state of Washington. The Department proposes that this proposed permit modification be issued for five years.

REFERENCES FOR TEXT AND APPENDICES

Environmental Protection Agency (EPA)

1992. National Toxics Rule. Federal Register, V. 57, No. 246, Tuesday, December 22, 1992.
1991. Technical Support Document for Water Quality-based Toxics Control. EPA/505/2-90-001.
1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. USEPA Office of Water, Washington, D.C.
1985. Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water. EPA/600/6-85/002a.
1983. Water Quality Standards Handbook. USEPA Office of Water, Washington, D.C.

Tsivoglou, E.C., and J.R. Wallace.

1972. Characterization of Stream Reaeration Capacity. EPA-R3-72-012. (Cited in EPA 1985 op.cit.)

Washington State Department of Ecology.

1994. Permit Writer's Manual. Publication Number 92-109

Wright, R.M., and A.J. McDonnell.

1979. In-stream Deoxygenation Rate Prediction. Journal Environmental Engineering Division, ASCE. 105(E2). (Cited in EPA 1985 op.cit.)

APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on March 21, 2004 and March 28, 2004 in Aberdeen's *The Daily World* to inform the public that an application had been submitted and to invite comment on the reissuance (or issuance) of this permit.

The Department will publish a Public Notice of Draft (PNOD) on November 2, 2004 in Aberdeen's *The Daily World* to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:30 a.m. and 4:30 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Industrial Unit Permit Coordinator
Department of Ecology
Southwest Regional Office – Water Quality
P.O. Box 47775
Olympia, WA 98504-7775

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-220-090). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing (WAC 173-220-100).

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (360) 407-6285 or by writing to the address listed above.

This permit and fact sheet were written by Gary Anderson P.E.

APPENDIX B--GLOSSARY

Acute Toxicity--The lethal effect of a compound on an organism that occurs in a short period of time, usually 48 to 96 hours.

AKART-- An acronym for "all known, available, and reasonable methods of treatment".

Ambient Water Quality--The existing environmental condition of the water in a receiving water body.

Ammonia--Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation --The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD₅--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD₅ is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass--The intentional diversion of waste streams from any portion of a treatment facility.

Chlorine--Chlorine is used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

Chronic Toxicity--The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean Water Act (CWA)--The Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample--A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity--Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Critical Condition--The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Dilution Factor--A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction e.g., a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

Engineering Report--A document which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Fecal Coliform Bacteria--Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

Grab Sample--A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial Wastewater--Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Major Facility--A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Maximum Daily Discharge Limitation--The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Minor Facility--A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Mixing Zone--An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The area of the authorized mixing zone is specified in a facility's permit and follows procedures outlined in state regulations (Chapter 173-201A WAC).

National Pollutant Discharge Elimination System (NPDES)--The NPDES (Section 402 of the Clean Water Act) is the Federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the State of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both State and Federal laws.

pH--The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

Responsible Corporate Officer-- A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Technology-based Effluent Limit--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

State Waters--Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Upset--An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

Water Quality-based Effluent Limit--A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

APPENDIX C – TECHNICAL CALCULATIONS

Parameter	Units	Type	Value	Viol	Dmr Date
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	87	N	1-Aug-00
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	10	N	1-Sep-00
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	25	N	1-Oct-00
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	105	N	1-Nov-00
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	310	N	1-Dec-00
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	29	N	1-Jan-01
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	98	N	1-Mar-01
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	590	N	1-May-01
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	1700	N	1-Jun-01
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	200	N	1-Aug-01
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	300	N	1-Sep-01
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	130	N	1-Oct-01
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	68	N	1-Nov-01
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	14	N	1-Dec-01
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	150	N	1-Jan-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	51	N	1-Feb-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	130	N	1-Mar-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	460	N	1-Apr-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	900	N	1-May-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	850	N	1-Jun-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	850	N	1-Jul-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	94	N	1-Aug-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	1200	N	1-Sep-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	980	N	1-Oct-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	72	N	1-Nov-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	67	N	1-Dec-02
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	49	N	1-Jan-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	42	N	1-Feb-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	40	N	1-Mar-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	8	N	1-Apr-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	470	N	1-May-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	60	N	1-Jun-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	700	N	1-Jul-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	1300	N	1-Aug-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	1700	N	1-Sep-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	1200	N	1-Oct-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	50	N	1-Nov-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	24	N	1-Dec-03
BOD, 5-DAY (20 DEG. C)	MG/L	MXD	35	N	1-Jan-04
Average			388.4103		

FACT SHEET FOR NPDES PERMIT NO. WA0003352
Washington Crab Producers, Crab and Shrimp Plant

Parameter	Units	Type	Value	Viol	Dmr Date
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Aug-00
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Sep-00
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Oct-00
COLIFORM, FECAL	#/100 ML	AVM	110	Y	1-Nov-00
COLIFORM, FECAL	#/100 ML	AVM	300	Y	1-Dec-00
COLIFORM, FECAL	#/100 ML	AVM	160	Y	1-Jan-01
COLIFORM, FECAL	#/100 ML	AVM	11	N	1-Mar-01
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-May-01
COLIFORM, FECAL	#/100 ML	AVM	900	Y	1-Jun-01
COLIFORM, FECAL	#/100 ML	AVM	500	Y	1-Aug-01
COLIFORM, FECAL	#/100 ML	AVM	80	Y	1-Sep-01
COLIFORM, FECAL	#/100 ML	AVM	500	Y	1-Oct-01
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Nov-01
COLIFORM, FECAL	#/100 ML	AVM	13	N	1-Dec-01
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Jan-02
COLIFORM, FECAL	#/100 ML	AVM	500	Y	1-Feb-02
COLIFORM, FECAL	#/100 ML	AVM	210	Y	1-Mar-02
COLIFORM, FECAL	#/100 ML	AVM	80	Y	1-Apr-02
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-May-02
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Jun-02
COLIFORM, FECAL	#/100 ML	AVM	900	Y	1-Jul-02
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Aug-02
COLIFORM, FECAL	#/100 ML	AVM	900	Y	1-Sep-02
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Oct-02
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Nov-02
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Dec-02
COLIFORM, FECAL	#/100 ML	AVM	170	Y	1-Jan-03
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Feb-03
COLIFORM, FECAL	#/100 ML	AVM	17	Y	1-Mar-03
COLIFORM, FECAL	#/100 ML	AVM	2	N	1-Apr-03
COLIFORM, FECAL	#/100 ML	AVM	50	Y	1-May-03
COLIFORM, FECAL	#/100 ML	AVM	500	Y	1-Jun-03
COLIFORM, FECAL	#/100 ML	AVM	300	Y	1-Jul-03
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Aug-03
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Sep-03
COLIFORM, FECAL	#/100 ML	AVM	1600	Y	1-Oct-03
COLIFORM, FECAL	#/100 ML	AVM	500	Y	1-Nov-03
COLIFORM, FECAL	#/100 ML	AVM	8	N	1-Dec-03
COLIFORM, FECAL	#/100 ML	AVM	27	N	1-Jan-04
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Aug-00
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Sep-00
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Oct-00
COLIFORM, FECAL	#/100 ML	MXD	110	Y	1-Nov-00
COLIFORM, FECAL	#/100 ML	MXD	300	Y	1-Dec-00
COLIFORM, FECAL	#/100 ML	MXD	43	N	1-Jan-01

FACT SHEET FOR NPDES PERMIT NO. WA0003352
Washington Crab Producers, Crab and Shrimp Plant

Parameter	Units	Type	Value	Viol	Dmr Date
COLIFORM, FECAL	#/100 ML	MXD	11	N	1-Mar-01
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-May-01
COLIFORM, FECAL	#/100 ML	MXD	900	Y	1-Jun-01
COLIFORM, FECAL	#/100 ML	MXD	500	Y	1-Aug-01
COLIFORM, FECAL	#/100 ML	MXD	80	Y	1-Sep-01
COLIFORM, FECAL	#/100 ML	MXD	500	Y	1-Oct-01
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Nov-01
COLIFORM, FECAL	#/100 ML	MXD	13	N	1-Dec-01
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Jan-02
COLIFORM, FECAL	#/100 ML	MXD	500	Y	1-Feb-02
COLIFORM, FECAL	#/100 ML	MXD	210	Y	1-Mar-02
COLIFORM, FECAL	#/100 ML	MXD	80	Y	1-Apr-02
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-May-02
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Jun-02
COLIFORM, FECAL	#/100 ML	MXD	900	Y	1-Jul-02
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Aug-02
COLIFORM, FECAL	#/100 ML	MXD	900	Y	1-Sep-02
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Oct-02
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Nov-02
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Dec-02
COLIFORM, FECAL	#/100 ML	MXD	170	Y	1-Jan-03
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Feb-03
COLIFORM, FECAL	#/100 ML	MXD	17	N	1-Mar-03
COLIFORM, FECAL	#/100 ML	MXD	2	N	1-Apr-03
COLIFORM, FECAL	#/100 ML	MXD	50	Y	1-May-03
COLIFORM, FECAL	#/100 ML	MXD	500	Y	1-Jun-03
COLIFORM, FECAL	#/100 ML	MXD	300	Y	1-Jul-03
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Aug-03
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Sep-03
COLIFORM, FECAL	#/100 ML	MXD	1600	Y	1-Oct-03
COLIFORM, FECAL	#/100 ML	MXD	500	Y	1-Nov-03
COLIFORM, FECAL	#/100 ML	MXD	8	N	1-Dec-03
COLIFORM, FECAL	#/100 ML	MXD	27	N	1-Jan-04
Average			827.6795		

FACT SHEET FOR NPDES PERMIT NO. WA0003352
Washington Crab Producers, Crab and Shrimp Plant

Parameter	Unit	Type	Value	Violation	Date
OIL & GREASE	MG/L	MXD	5 N		1-Aug-00
OIL & GREASE	MG/L	MXD	280 N		1-Sep-00
OIL & GREASE	MG/L	MXD	5 N		1-Oct-00
OIL & GREASE	MG/L	MXD	5 N		1-Nov-00
OIL & GREASE	MG/L	MXD	5 N		1-Dec-00
OIL & GREASE	MG/L	MXD	5 N		1-Jan-01
OIL & GREASE	MG/L	MXD	5 N		1-Mar-01
OIL & GREASE	MG/L	MXD	220 N		1-May-01
OIL & GREASE	MG/L	MXD	240 N		1-Jun-01
OIL & GREASE	MG/L	MXD	410 N		1-Aug-01
OIL & GREASE	MG/L	MXD	300 N		1-Sep-01
OIL & GREASE	MG/L	MXD	41 N		1-Oct-01
OIL & GREASE	MG/L	MXD	5 N		1-Nov-01
OIL & GREASE	MG/L	MXD	5 N		1-Dec-01
OIL & GREASE	MG/L	MXD	6 N		1-Jan-02
OIL & GREASE	MG/L	MXD	5 N		1-Feb-02
OIL & GREASE	MG/L	MXD	5 N		1-Mar-02
OIL & GREASE	MG/L	MXD	5 N		1-Apr-02
OIL & GREASE	MG/L	MXD	97 N		1-May-02
OIL & GREASE	MG/L	MXD	87 N		1-Jun-02
OIL & GREASE	MG/L	MXD	180 N		1-Jul-02
OIL & GREASE	MG/L	MXD	130 N		1-Aug-02
OIL & GREASE	MG/L	MXD	120 N		1-Sep-02
OIL & GREASE	MG/L	MXD	87 N		1-Oct-02
OIL & GREASE	MG/L	MXD	6 N		1-Nov-02
OIL & GREASE	MG/L	MXD	5 N		1-Dec-02
OIL & GREASE	MG/L	MXD	5 N		1-Jan-03
OIL & GREASE	MG/L	MXD	5 N		1-Feb-03
OIL & GREASE	MG/L	MXD	5 N		1-Mar-03
OIL & GREASE	MG/L	MXD	5 N		1-Apr-03
OIL & GREASE	MG/L	MXD	43 N		1-May-03
OIL & GREASE	MG/L	MXD	31 N		1-Jun-03
OIL & GREASE	MG/L	MXD	27 N		1-Jul-03
OIL & GREASE	MG/L	MXD	33 N		1-Aug-03
OIL & GREASE	MG/L	MXD	110 N		1-Sep-03
OIL & GREASE	MG/L	MXD	5 N		1-Oct-03
OIL & GREASE	MG/L	MXD	5 N		1-Nov-03
OIL & GREASE	MG/L	MXD	5 N		1-Dec-03
OIL & GREASE	MG/L	MXD	5 N		1-Jan-04
Average			65.33333		

FACT SHEET FOR NPDES PERMIT NO. WA0003352
Washington Crab Producers, Crab and Shrimp Plant

Parameter	Unit	Type	Amount	Date
FLOW	GPD	MAX	32000	1-Aug-00
FLOW	GPD	MAX	30000	1-Sep-00
FLOW	GPD	MAX	29000	1-Oct-00
FLOW	GPD	MAX	31000	1-Nov-00
FLOW	GPD	MAX	10000	1-Dec-00
FLOW	GPD	MAX	1500	1-Jan-01
FLOW	GPD	MAX	10000	1-Mar-01
FLOW	GPD	MAX	41000	1-May-01
FLOW	GPD	MAX	41000	1-Jun-01
FLOW	GPD	MAX	54000	1-Aug-01
FLOW	GPD	MAX	26000	1-Sep-01
FLOW	GPD	MAX	16000	1-Oct-01
FLOW	GPD	MAX	7000	1-Nov-01
FLOW	GPD	MAX	8000	1-Dec-01
FLOW	GPD	MAX	20000	1-Jan-02
FLOW	GPD	MAX	8000	1-Feb-02
FLOW	GPD	MAX	17000	1-Mar-02
FLOW	GPD	MAX	16000	1-Apr-02
FLOW	GPD	MAX	12000	1-May-02
FLOW	GPD	MAX	16000	1-Jun-02
FLOW	GPD	MAX	18000	1-Jul-02
FLOW	GPD	MAX	14000	1-Aug-02
FLOW	GPD	MAX	19000	1-Sep-02
FLOW	GPD	MAX	17000	1-Oct-02
FLOW	GPD	MAX	18000	1-Dec-02
FLOW	GPD	MAX	16000	1-Jan-03
FLOW	GPD	MAX	14000	1-Feb-03
FLOW	GPD	MAX	16000	1-Mar-03
FLOW	GPD	MAX	12000	1-Apr-03
FLOW	GPD	MAX	11000	1-May-03
FLOW	GPD	MAX	13000	1-Jun-03
FLOW	GPD	MAX	13000	1-Jul-03
FLOW	GPD	MAX	15000	1-Aug-03
FLOW	GPD	MAX	11000	1-Sep-03
FLOW	GPD	MAX	13000	1-Oct-03
FLOW	GPD	MAX	12000	1-Nov-03
FLOW	GPD	MAX	9000	1-Dec-03
FLOW	GPD	MAX	8000	1-Jan-04
AVG			17750	

FACT SHEET FOR NPDES PERMIT NO. WA0003352
Washington Crab Producers, Crab and Shrimp Plant

Date	Temp.	pH Min	pH Max	O&G	TSS	BOD	FLOW
	°C	S.U.	S.U.	mg/L	mg/L	mg/L	gpd
10/1/2000	11	6.2	7.5	1.2	56	38	67500
1/1/2001	10	6.6	7.5	0	139	15	85000
4/4/2001	12	6.6	7.6	1.4	110	19	60000
7/1/2001	14	6.8	7.7	1	115	31	45500
10/1/2001	11	6.3	7.8	1.5	112	33	43700
1/1/2002	11	6.2	7.1	5.9	102	17	87500
4/1/2002	14	6.5	7.5	0	110	18	87500
7/1/2002	33	6.9	7.1	18	126	25	45500
10/1/2002	13	6.6	7.4	3.6	126	40	100000
1/1/2003	13	6.5	7.1	5.9	150	14	88000
4/1/2003	18	6.6	7.2	6.6	202	22	81000
10/1/2003	13	6.5	7.7	7.7	87	23	99500
AVG	14.41667	6.525	7.433333	4.4	119.5833	24.58333	74225

APPENDIX D--RESPONSE TO COMMENTS

No comments were received.